

# SPACING BIRTHS, SAVING LIVES

## *Ways to Turn the Latest Birth Spacing Recommendation into Results*



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### THE NEW BIRTH SPACING RECOMMENDATION

For many years, family planning experts believed that a 24-month birth interval (the amount of time between the birth date of one child and the birth date of the next child) was adequate to ensure healthy mothers and healthy children. However, recent findings by Shea Rutstein, Ph.D.<sup>1</sup> indicate that spacing births at least 36 months (three years) apart is even more beneficial.<sup>2</sup>

In his analysis, Rutstein examined the association between birth intervals and various child health and nutrition outcomes, including perinatal, infant, and under-five mortality.<sup>3</sup> The analysis was conducted using *MEASURE DHS+* data from 17 less-developed countries.

As a result of Rutstein's study, international experts now recognize the need to promote birth intervals that are at least three years long. The United States Agency for International

### New Recommendation

*Births should be spaced at least **36 months** (three years) apart to achieve greater improvements in child survival (see footnote number 2).*

Development (USAID) recommends birth intervals of three years or longer and recently published *Birth Spacing: A Call to Action* (available at [http://www.usaid.gov/pop\\_health/pop/publications/docs/birthspacing.pdf](http://www.usaid.gov/pop_health/pop/publications/docs/birthspacing.pdf)). The document summarizes research by Rutstein and others, and discusses important considerations

for action. UNICEF also recognizes the need to promote longer birth intervals. As part of its Integrated Early Childhood Development initiative (which focuses on the first three years of life), UNICEF plans to work with USAID and other partners to develop an action framework that promotes birth intervals of

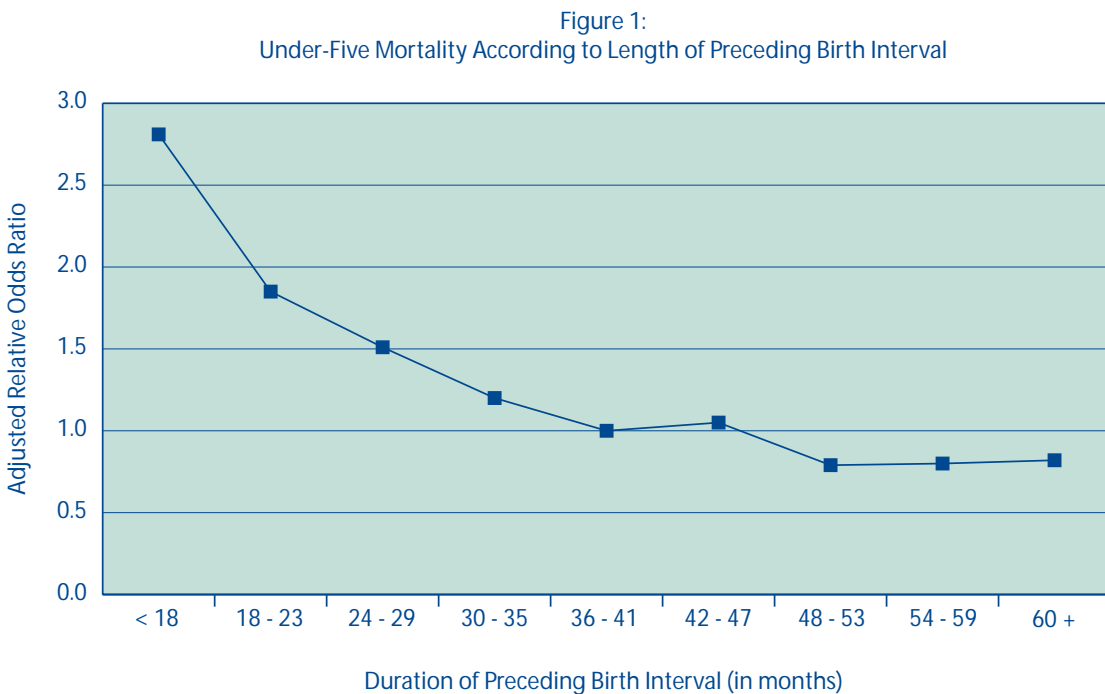
at least three years for optimal health and nutrition outcomes in children.

This paper highlights some of Rutstein's findings on birth intervals and discusses specific steps that can be taken by PVOs and NGOs to address this critical determinant of maternal and child health (MCH) and survival.

<sup>1</sup> Dr. Shea Rutstein works for the *MEASURE DHS+* Project at ORC Macro. *MEASURE DHS+* assists developing countries in the collection and use of data to plan, monitor, and evaluate population, health, and nutrition programs. For more information about *MEASURE DHS+*, go to <http://www.measuredhs.com>.

<sup>2</sup> There is some evidence (Conde-Agudelo & Belizan, 2000; Rutstein, 2000) that birth intervals longer than 5 years are associated with adverse maternal and child outcomes. International experts are currently debating whether the recommendation should be "at least 3 years" or "3-5 years".

<sup>3</sup> Rutstein explored the effect of birth intervals while taking the following factors into account: sex of the child, birth order, mother's age at birth, survival of the preceding child, type of prenatal care provider, timing of prenatal care, number of prenatal tetanus vaccinations, urban/rural residence, mother's education, index of household wealth, type of person attending the delivery, wantedness of the child, and whether the birth resulted from contraceptive failure.



Adapted from Rutstein (2000)

### RECENT FINDINGS THAT HAVE IMPLICATIONS FOR CHILD HEALTH PROGRAMMING

Malnutrition is an underlying factor in more than half of all under-five deaths. Rutstein found that the risk of **chronic or long-term malnutrition (also known as stunting) decreases with longer birth intervals**. There are many possible explanations for this association. First, short birth intervals are associated with low birth weight, which places the child at risk for poor health and nutrition outcomes. Second, when children are born closely together, older children usually end up getting weaned from breastmilk too early, which has negative consequences for their nutrition and health. In general terms,

more young children in the household means more mouths to feed. Through birth spacing, families can reduce the number of young children in the household, resulting in less competition for food and other resources, and more care and attention from the mother and other caregivers.

Rutstein also observed a **direct association between birth intervals and the risk of under-five mortality** (see Figure 1). Children who are born less than 24 months after the previous birth are almost two-and-a-half times more likely to die by the age of five than children who are born 36–47 months after the previous birth. It is important to note that a **minimum birth interval of 24 months is not enough**. According to Rutstein's

analysis, children born 24–35 months after the previous birth are still 41 percent more likely to die than children born 36–47 months after the previous birth. **Therefore, extending the minimum recommended birth interval from two years to three years really makes a difference in terms of child survival.**

The findings are also convincing for survival during the first year of life. Birth intervals of 36–47 months are associated with the lowest risks of neonatal and infant mortality. Thus, in terms of maximizing neonatal and infant survival, it appears that a birth interval of 36–47 months is not too long, and it's not too short. It's just right.

**NOT ONLY ARE LONGER BIRTH INTERVALS OPTIMAL FOR THE CHILD, BUT MOST WOMEN WANT LONGER BIRTH INTERVALS.**

Rutstein found that the majority of mothers in African countries want birth intervals that are at least 36 months long. In India, where almost two out of three women have births that are spaced less than 36 months apart, almost one-half of women prefer an interval longer than that. Despite women's preferences for longer birth intervals, the majority of births worldwide occur less than 36 months after the previous birth. Thus, there is a need to address factors that create the gap between women's desire and reality.

Rutstein's study focused on child outcomes, but other research has indicated that birth

spacing also has positive effects on maternal health and survival. Adequate birth spacing allows women to recover from the physical demands of pregnancy. In doing so, it reduces the risk of poor maternal and infant outcomes in future pregnancies.

## TRANSLATING THE NEW RECOMMENDATION INTO RESULTS

Birth spacing falls within the broader issue of family planning. Family planning programs strive to provide women/couples with the means to a) space their births or b) limit fertility (i.e., avoid having any more children). Both can lead to a reduction in the average number of children per woman.

### HOW TO GO FROM RECOMMENDATIONS TO RESULTS

- Engage women, men, families, providers, and community leaders in dialogue. Educate them on the benefits of three-year birth spacing and the great risks of rapid childbearing, as well as on ways to access information/services (on breastfeeding/LAM, abstinence, natural family planning, and other methods).
- Work with health planners and providers to ensure that services are client-centered and of high quality.
- Educate policymakers and planners about the potential for MCH and nutritional impact if more families chose to space births three years apart.

There are many birth spacing program options. Regardless of the strategy, the emphasis should be on empowering women and their partners to make informed choices about a temporary contraceptive method (or combination of methods) that allows them to get the

number of children they want, but in a way that is safest for both the mother and her children (by spacing births at least 36 months apart). This section presents five guiding principles to consider when developing birth spacing strategies. They are as follows:

1. Understand the context of fertility behavior and sexual decisionmaking.
2. Involve household and community “power brokers” and decisionmakers.
3. Close the gap between the desire to space and reality by addressing the precursors to change.
4. Integrate birth spacing with other activities.
5. Measure what is being done, and use the information to improve programming.

### 1. UNDERSTAND THE CONTEXT OF FERTILITY BEHAVIOR AND SEXUAL DECISIONMAKING

Access to and the availability of birth spacing methods are important issues to address, but they are not the only factors that affect whether a woman spaces her births. The following are examples of issues to explore:

- What are the religious or cultural beliefs/myths related to childbearing or sexually transmitted infections?
- What are the fertility preferences (desired number/timing of children) of women versus men?

- Who makes the decisions regarding sexual matters (such as family planning use) or the number and timing of children?
- Is there an unmet need for family planning?<sup>4</sup> If so, what is the unmet need for spacing births versus limiting fertility? Are there variations by women’s age or other socio-demographic characteristics?
- What are the characteristics of women who use family planning?
- What role, if any, does child gender preference play in a couple’s decision to use contraception?
- What are women/couples doing (either openly or secretly) to prevent pregnancy? (This should include an investigation into traditional methods or practices intended to prevent pregnancy.)
- What are the barriers that prevent women from spacing their births? (Consider both individual-level factors such as the lack of sexual negotiation skills and higher-level factors such as the quality of family planning services.)

As an example, if you discover that men want more children than women do, the next steps would be to better understand why men want more children, then incorporate this information into birth spacing messages, strategies, and activities that specifically target men.

There are a number of quantitative and qualitative tools available. For example, CHANGE has an interesting formative research tool (available at

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<sup>4</sup>Unmet need is defined as the percentage of currently married women who are not using any method of contraception but who do not want any more children or want to wait at least two years before having another child.

[http://www.changeproject.org/news/DRP\\_guide.doc](http://www.changeproject.org/news/DRP_guide.doc)) that involves using diagnostic role-plays to obtain information on current practices and perceptions. The information can then be used to develop effective program strategies.

## 2. INVOLVE HOUSEHOLD AND COMMUNITY “POWER BROKERS” AND DECISIONMAKERS

Birth spacing directly affects women of reproductive age and their children, but experience has shown that targeting women alone is not very effective. Programs that focus on women, without complementary activities that engage their partners and other influential people, can also place

women in jeopardy (e.g., at risk for domestic violence). At the household level, it is often the husband or another family member (e.g., the mother-in-law) who has the final say on the number and timing of children. At the community level, opinion leaders such as the village chief, tribal elders, religious leaders, or traditional practitioners (such as traditional birth attendants) can have a tremendous impact on what individuals do. It is therefore important to **involve husbands and other individuals who can create an enabling environment to practice birth spacing**. Mass media (e.g., radio dramas) and/or traditional or folk media (e.g., storytelling, songs, skits) can be used to promote dialogue at both the household and community levels.

## For More Information on Ways to Engage Various Groups in Family Planning, Visit the Following:

- <http://www.sifpsa.org>—the web site for SIFPSA (State Innovations in Family Planning Services Project Agency), which is a joint venture between the Government of India and USAID. Its newsletter, *Innovations*, has a section devoted to the NGO sector. The two latest issues showcase activities with religious leaders and mother-in-law groups.
- [http://www.popcouncil.org/pdfs/frontiers/pbriefs/male\\_CBDs\\_brf.pdf](http://www.popcouncil.org/pdfs/frontiers/pbriefs/male_CBDs_brf.pdf)—recent FRONTIERS (Frontiers in Reproductive Health) publication (*Program Brief No. 2*) on activities involving men as community-based distributors of condoms.
- <http://www.fhi.org/en/fp/fppubs/network/v18-3/index.html>—issue of Family Health International's *Networks* publication (Spring 1998, Volume 8, Issue 3) devoted to men and reproductive health.
- <http://www.jhuccp.org/pr/j46edsum.stm#top>—issue of the Center for Communication Programs' *Population Reports* on male participation.

### 3. CLOSE THE GAP BETWEEN THE DESIRE TO SPACE AND REALITY BY ADDRESSING THE PRECURSORS TO CHANGE

From a child survival perspective, the ultimate goal is to reduce infant and child mortality. However, it is difficult for a single organization to achieve and/or measure this degree of impact. An achievable (and measurable) result could be adequately spaced births. It is important to identify the precursors (intermediate results) to achieving that result. These precursors usually exist at multiple levels, not just at the level of the individual. Table 1 illustrates the continuum of results at the individual, community, and health facility/health systems levels.

It is important to recognize that knowledge about the benefits of birth spacing, or even the desire to space, rarely translates into practice. Women need the necessary skills (e.g., how to negotiate contraceptive use with their husbands or partners), not just information. In addition, there should be a supportive environment for birth spacing. This involves addressing service delivery issues such as the availability of affordable birth spacing methods. It is also important to pay attention to socio-cultural issues such as gender and social dynamics. For example, at the household/community level, the involvement of men or mothers-in-law is vital to enabling women to turn their desires about the number and timing of children into reality. At the health facility/health systems level, a simple issue that is often overlooked—despite its importance in some societies—is the need to have men counsel men and women counsel women.

Access still deserves attention, since different population groups usually have different levels of access. For example, in many contexts, young, low-parity, or poor women have limited access to family planning services and have a high unmet need for birth spacing. It is important to provide youth-friendly services that engage both married and unmarried youth. This, in addition to addressing social norms and harmful customs (e.g., the exploitation of young, virgin females), can enable younger individuals to delay the onset of childbearing and help young women who have already begun childbearing to properly space their births and achieve their desired family size.

Strategies that address both supply and demand have been highly successful in increasing contraceptive use for all women. For example, social marketing combines effective communication strategies (which are designed to stimulate demand for family planning and promote healthy behaviors) with the provision of much-needed services and products to lower-income individuals (by marketing through the private sector). For more information on social marketing, visit Population Services International's (PSI) web site (<http://www.psi.org>).

In addition to the issues listed above, it is important to create a supportive policy environment. PVOs and NGOs can help raise awareness among policy makers about the importance of spacing births at least 36 months apart, and encourage the development of national MCH and/or family planning initiatives that support the new international recommendation.



Table 1: Continuum of Results Leading to Adequately Spaced Births and Improved Infant/Child Survival

	INTERMEDIATE RESULTS		ACHIEVABLE RESULT IN THE POPULATION	IMPACT		
AT THE INDIVIDUAL LEVEL	Individuals know about the benefits of birth spacing.	Women of reproductive age and/or their husbands/ partners use birth spacing methods	Adequately spaced births (children are born at least 36 months apart)	Improved maternal and infant/ child survival		
	Individuals know of different birth spacing methods.					
	Individuals know where to get birth spacing methods.					
	Women are able to negotiate the number and timing of children with their partners.					
AT THE COMMUNITY LEVEL	Affordable birth spacing methods are available in the community.					
	Opinion leaders and decisionmakers endorse birth spacing, and socio-cultural barriers to access and use are addressed.					
AT THE HEALTH FACILITY/ HEALTH SYSTEMS LEVEL	High-quality family planning services are provided, e.g., -services are culturally appropriate, gender sensitive, and youth friendly -a range of methods are offered -there are no stockouts of methods & essential supplies -health staff are technically competent and have the necessary interpersonal and communication skills -the physical environment is clean and hygienic -services are offered at convenient times & locations.					
	Mechanisms are in place to track commodities, the quality of service provision, and program progress.					
	Birth spacing is integrated with other health activities to reduce missed opportunities and ensure continuity of care.					

#### 4. INTEGRATE BIRTH SPACING WITH OTHER ACTIVITIES

Table 1 highlighted areas for potential action. To maximize sustainability and

impact, **child spacing should be integrated with other activities.** Table 2 provides suggestions on how to achieve this.

Table 2: Integrating Birth Spacing with Other Activities

What We Know	What Can Be Done
If a woman is not protected from getting pregnant, she is not protected from HIV or other STIs.	<ul style="list-style-type: none"> <li>Train health workers to incorporate messages and strategies that promote dual-benefit methods (i.e., methods that prevent both pregnancy and HIV/STI transmission). Such methods include abstinence or the correct and consistent use of male or female condoms. Job aids, IEC/BCC materials, and dual-benefit methods should be available in MCH, reproductive health, and HIV/STI settings, not just at family planning clinics. Visit <a href="http://www.popcouncil.org">www.popcouncil.org</a> or <a href="http://www.fhi.org">www.fhi.org</a> for more information on ways to integrate HIV/AIDS and family planning services.</li> </ul>
There are a number of missed opportunities to address birth spacing/ family planning with key target groups.	<ul style="list-style-type: none"> <li><i>EPI, IMCI, and Well-baby Care:</i> Train health workers to include a) the determination of birth spacing/family planning needs and b) counseling on the benefits of birth spacing as part of standard case management.</li> <li><i>Maternal and Neonatal Health:</i> During antenatal contacts with pregnant women, assist them in choosing an appropriate birth spacing method that can be used after delivery; include counseling on family planning options as part of postpartum care; provide postabortion counseling on birth spacing/family planning to avoid future unwanted pregnancies.</li> <li><i>Breastfeeding:</i> See discussion on LAM below</li> <li>Create or strengthen mechanisms for referring individuals who seek other types of services but have an unmet need for family planning.</li> <li>Pursue community-based distribution (CBD) activities to increase access to the underserved. (Read about the Population Council's lessons learned from CBD in Africa at <a href="http://www.popcouncil.org/publications/wp/prd/121.html#cbd_africa">http://www.popcouncil.org/publications/wp/prd/121.html#cbd_africa</a>.)</li> </ul>

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What We Know	What Can Be Done
<p>The Lactational Amenorrhea Method (LAM) is highly effective in preventing pregnancy during the first six months after delivery. It is economical and has been shown to increase the uptake of other family planning services.</p>	<p><i>Provide follow up and support to pregnant women and new mothers:</i></p> <ul style="list-style-type: none"> <li>• Promote LAM, which supports both exclusive breastfeeding and adequate birth spacing. LAM requires the following:               <ol style="list-style-type: none"> <li>1) the mother's menstrual periods have not resumed,</li> <li>2) the baby is either exclusively breastfed or the vast majority of the feeds given to the baby are breastfeeds, and</li> <li>3) the baby is less than six months old. If all three criteria are met, the chance of getting pregnant is less than 2 percent.</li> </ol> </li> <li>• If a woman does not meet the above three criteria, or if she decides that she does not want to practice LAM, she should be supported in choosing an appropriate contraceptive method. [An important note: Estrogen can decrease the quantity of breastmilk, so estrogen-containing methods (e.g., combined oral contraceptive pills, combined injectables) should be avoided until after six months postpartum.]</li> </ul> <p><i>For more information on LAM, contact LINKAGES (<a href="http://www.linkagesproject.org">http://www.linkagesproject.org</a>) or Dr. Miriam Labbok (<a href="mailto:MLabbok@UNICEF.org">MLabbok@UNICEF.org</a>) of UNICEF.</i></p>
<p>Quality of care is a major determinant of contraceptive acceptance and continuation.</p>	<ul style="list-style-type: none"> <li>• As part of crosscutting program approaches such as Quality Assurance or logistics management, projects should include strategies designed to monitor and improve the quality of birth spacing/family planning activities.</li> </ul> <p><i>For information on family planning service quality, visit <a href="http://www.popcouncil.org">www.popcouncil.org</a>. UNFPA has a logistics management checklist that is available on its web site (<a href="http://www.unfpa.org/publications/technical.htm">http://www.unfpa.org/publications/technical.htm</a>). The Quality Assurance Project has a publication called <i>Improving Interpersonal Communication between Health Care Providers and Clients</i> (<a href="http://www.qaproject.org/index1.html">http://www.qaproject.org/index1.html</a>).</i></p>

## 5. MEASURE WHAT IS BEING DONE, AND USE THE INFORMATION TO IMPROVE PROGRAMMING

This section presents examples of monitoring and evaluation indicators. It is not necessary to select all of the indicators listed below. Projects are encouraged to **identify a small set of indicators that relate directly to their program activities**

**and target groups (women, husbands/partners, etc.).** It is also important to **use routinely collected information to improve program activities and track progress**, not just provide statistics for monthly or quarterly reports. Through operations research, projects can test the effectiveness of intervention activities, improve the quality of service delivery, and maximize results.

### Examples of Monitoring and Evaluation Indicators Related to Birth Spacing

#### *Population-level Result Indicator:*

- **Percentage of women whose two youngest biological children are born at least 36 months apart**

Comment: Many PVOs conduct surveys (e.g., the Knowledge, Practices, and Coverage survey) that only collect information on surviving children. As a result, there is the chance of overestimating the length of the preceding birth interval since during the interval between the two surviving children, the mother could have given birth to additional children who died. What is actually being measured in most surveys is the birth interval between the two youngest surviving children.

#### *Intermediate Result Indicators at the Individual/Community Level:*

- **Percentage of a) women and b) men who can name, without prompting, at least three birth spacing methods**

Comment: Should include natural family planning.

- **Percentage of women who report at least one place where they can obtain a birth spacing method**
- **Percentage of a) women and b) men who approve of couples using contraception to space births**

Comment: The indicator does not measure an individual's attitude towards his/her own use of family planning. It is a proxy of social acceptability of the practice.

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## Examples of Monitoring and Evaluation Indicators Related to Birth Spacing

- **Percentage of women who do not want a child within the next two years, or who are not sure, that are currently using a method of birth spacing**

Comment: If the focus is on a particular method (e.g., LAM, condoms), create an indicator that reflects the program focus. For example, possible LAM indicators could be the percentage of women with a child less than six months old who can name all four components of LAM (a measure of knowledge) and the percentage of women with a child less than six months old who chose LAM as a method of birth spacing (a measure of use). The exclusive breastfeeding rate could also be used as a proxy measure.

### *Intermediate Result Indicators at the Health Facility/Systems Level:*

- **Percentage of the population who live within a reasonable distance from a family planning service delivery point**

Comment: This indicator measures access. "Reasonable distance" can be defined in terms of physical proximity (e.g., within 5 km of a service delivery point) or traveling time (e.g., within 2 hours walking distance).

- **Among mothers having at least one postpartum visit, the percentage who report discussing family planning with the health provider during a postpartum visit**

Comment: It can be used as a proxy for the degree to which birth spacing/family planning is integrated with maternal health services. A similar indicator could be calculated for health contacts during the antenatal period.

- **Percentage of well-baby or sick-child cases in which the health worker determined the client's family planning needs and/or discussed the importance of birth spacing**

Comment: This measure can be assessed through direct observation (e.g., during supervisory visits) and exit interviews with clients.

- **Number of service delivery points with no stockouts of birth spacing methods or supplies**

Comment: This indicator should be assessed regularly (e.g., monthly or quarterly)

- **Percentage of family planning clients who receive adequate counseling on contraceptive choices**

Comment: Good counseling entails both the provision of accurate information on key topics (e.g., how long births should be spaced, birth spacing options, side effects associated with methods, instructions for use and follow-up) and positive client-provider interaction.

### CONCLUSION

There are a number of factors that affect maternal and child health and nutrition, but the following relationship is clear (see figure below).

Birth spacing directly affects the health and survival of women and children, but it is absolutely necessary to involve men and other decisionmakers in birth spacing

programs. By spacing births at least 36 months apart, families can reduce the number of young dependents and better provide children with the care and resources they deserve. Birth spacing might not be the panacea, but when integrated with other activities, it gives children a fighting chance. Spacing births can truly save lives.



### ADDITIONAL RESOURCES

The CATALYST Consortium (<http://www.rhcatalyst.org>) has a birth spacing technical initiative (OBSI). PVOs and NGOs are encouraged to participate. Interested individuals should contact Isabel Stout ([istout@rhcatalyst.org](mailto:istout@rhcatalyst.org)) or Sarah Berman ([sberman@rhcatalyst.org](mailto:sberman@rhcatalyst.org)) of the CATALYST Consortium (202-775-1977, [info@rhcatalyst.org](mailto:info@rhcatalyst.org)) for more information.

The CHANGE Project (<http://www.changeproject.org/>) has useful resources on ways to develop and apply practical solutions to behavior change problems that impact health and nutrition.

The ENABLE Project (<http://www.cedpa.org/trainprog/enable.htm>) aims to strengthen women's ability to make informed and autonomous decisions to prevent pregnancy and improve their health. The focus countries are Ghana, India, Nepal, Nigeria, and Senegal.

Frontiers in Reproductive Health (<http://www.popcouncil.org/frontiers/frontiers.html>) conducts operations research to improve the delivery of family planning and reproductive health services in developing countries.

The Johns Hopkins University/Center for Communication Programs (JHU/CCP) is a forerunner in research-based communication for behavior change. For more information, visit <http://www.jhuccp.org/>.

MEASURE DHS+ has an online tool called STATCompiler (available at <http://www.measuredhs.com/>), which allows users to generate family planning and other indicators from Demographic and Health Surveys (DHS) worldwide.

Norton M and M Kerrigan. 2001. *Birth spacing: a call to action*. Available from USAID at [http://www.usaid.gov/pop\\_health/pop/publications/docs/birthspacing.pdf](http://www.usaid.gov/pop_health/pop/publications/docs/birthspacing.pdf).

Rafalimanana H and CF Westoff. 2001. *Gap between preferred and actual birth intervals in Sub-Saharan Africa: implications for fertility and child health*. DHS Analytical Studies No. 2. ORC Macro. (Available in PDF format at <http://www.measuredhs.com/pubs/pdf/AS2/AS2.pdf>.)

The web site for the United Nations Population Fund (UNFPA) is <http://www.unfpa.org>.



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